

WHAT IS CLAIMED IS:

1. A method in a communication system for providing an access by a communication device to a first communication network through a second communication network, the communication device having a first
5 identification and supporting a cellular core network signaling protocol of the first communication network, the method comprising:
 assigning a second identification to the communication device;
 enabling the communication device through the second communication
10 network to access an alternative network controller;
 establishing communication between the communication device and the first communication network through the alternative network controller;
 and
 associating the first identification of the communication device with
15 the second identification of the communication device.
2. The method of claim 1, further comprising:
 providing services directed to the first identification of the communication device to the second identification of the communication
20 device.
3. The method of claim 1, wherein assigning a second identification to the communication device includes:
 assigning the second identification in response to a request from the
25 communication device to access the second communication network, and
 authorizing the communication device to access the second communication network.

4. The method of claim 3, further comprising:
receiving identification information of the second communication
network by the alternative network controller; and
associating the identification information of the second communication
5 network with the first identification of the communication device.
5. The method of claim 4, wherein the identification information of the second
communication network includes at least one of:
a unique identifier specific to the second communication network,
10 location information of the second communication network,
a medium access control identification of the second communication
network,
a service set identifier of the second communication network, and
an Internet Protocol address of the second communication network.
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6. The method of claim 1, wherein establishing communication between
the communication device and the first communication network through the
alternative network controller comprises:
converting a protocol of the second communication network into the
20 cellular core network signaling protocol of the first communication network;
and
converting the cellular core network signaling protocol of the first
communication network into the protocol of the second communication
network.
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7. The method of claim 1, wherein establishing communication between
the communication device and the first communication network through the
alternative network controller includes setting up and controlling a tunnel
between the communication device and the alternative network controller.

8. The method of claim 1, wherein the second communication network is one of:

an unlicensed communication network,
a local area network,
5 a wireless local area network
a wideband network,
an infrared network, and
a short-range network.

10 9. The method of claim 1, wherein enabling the communication device through the second communication network to access an alternative network controller includes:

enabling the communication device through the second communication network to access a default alternative network controller of a plurality of alternative network controllers,

15 wherein each of the plurality of alternative network controllers operably coupled to a corresponding communication network of a plurality of communication networks, and

the default alternative network controller is operably coupled to the first communication network.

10. The method of claim 9, further comprising:

selecting a preferred alternative network controller from the plurality of alternative network controllers based upon a predetermined condition by the default alternative network controller;

25 establishing communication between the communication device and a preferred communication network operably coupled to the preferred alternative network controller through the preferred alternative network controller; and

30 providing services directed to the first identification of the communication device to the second identification of the communication device.

11. The method of claim 10, wherein the predetermined condition includes at least one of:
- the communication device being located outside of a coverage area of the first communication network;
 - 5 the communication device being located within a coverage area of the preferred communication network;
 - the first communication network having a pre-arranged relationship with the preferred communication network;
 - the preferred alternative network controller having a specific
 - 10 functionality requested by the communication device; and
 - the default alternative network control reaching a traffic capacity.
12. The method of claim 10, further comprising:
- receiving identification information of the second communication
 - 15 network by the first communication network upon assigning the second identification to the communication device; and
 - associating the identification information of the second communication network with the first identification of the communication device.
- 20 13. The method of claim 12, wherein the identification information of the second communication network includes at least one of:
- location information of the second communication network,
 - a medium access control identification of the second communication
 - network,
 - 25 a service set identifier of the second communication network, and
 - an Internet Protocol address of the second communication network.

14. The method of claim 13, wherein the predetermined condition includes at least one of:
- the second communication network being located outside of a coverage area of the first communication network; and
 - 5 the second communication network being located within a coverage area of the preferred communication network.
15. The method of claim 10, wherein establishing communication between the communication device and the preferred communication network
- 10 comprises:
- converting a protocol of the second communication network into a cellular core network signaling protocol of the preferred communication network, and
 - 15 converting the cellular core network signaling protocol of the preferred communication network into the protocol of the second communication network.
16. The method of claim 10, wherein establishing communication between the communication device and the preferred cellular communication network
- 20 includes setting up and controlling a tunnel between the communication device and the preferred alternative network controller.
17. The method of claim 10, wherein the second communication network is one of:
- 25 an unlicensed communication network,
 - a local area network,
 - a wireless local area network
 - a wideband network,
 - an infrared network, and
 - 30 a short-range network.

18. The method of claim 1, further comprising:

directing the communication device to access a preferred
communication network from a plurality of communication networks operably
coupled to the alternative communication controller based upon a
predetermined condition;

establishing communication between the communication device and
the preferred communication network through the alternative network
controller; and

providing services directed to the first identification of the
communication device to the second identification of the communication
device.

19. The method of claim 18, wherein the predetermined condition includes
at least one of:

the communication device being located outside of a coverage area of
the first communication network;

the communication device being located within a coverage area of the
preferred communication network;

the first communication network having a pre-arranged relationship
with the preferred communication network;

the preferred communication network having a specific functionality
requested by the communication device; and

the first communication network reaching a traffic capacity through the
alternative network controller.

20. The method of claim 18, further comprising:

receiving identification information of the second communication
network by the first communication network upon assigning the second
identification to the communication device; and

associating the identification information of the second communication
network with the first identification of the communication device.

21. The method of claim 20, wherein the identification information of the second communication network includes at least one of:
location information of the second communication network,
a medium access control identification of the second communication
5 network,
a service set identifier of the second communication network, and
an Internet Protocol address of the second communication network.
22. The method of claim 21, wherein the predetermined condition includes
10 at least one of:
the second communication network being located outside of a
coverage area of the first communication network; and
the second communication network being located within a coverage
area of the preferred communication network.
23. The method of claim 18, wherein establishing communication between
the communication device and the preferred communication network through
the alternative network controller comprises:
converting a protocol of the second communication network into a
20 cellular core network signaling protocol of the preferred communication
network, and
converting the cellular core network signaling protocol of the preferred
communication network into the protocol of the second communication
network.
24. The method of claim 18, wherein establishing communication between
the communication device and the preferred cellular communication network
through the alternative network controller includes setting up and controlling a
tunnel between the communication device and the alternative network
30 controller.

25. The method of claim 18, wherein the second communication network is one of:

- an unlicensed communication network,
- a local area network,
- 5 a wireless local area network
- a wideband network,
- an infrared network, and
- a short-range network.

26. A communication system configured to provide an alternate communication path, the communication system comprising:
- a first communication network configured to support a first cellular core network signaling protocol;
 - 5 an alternative network controller coupled to the first communication network, the alternative network controller configured to communicate with the first communication network using the first cellular core network signaling protocol;
 - a second communication network coupled to the alternative communication network, the second communication network configured to support a second communication network protocol and to communicate with the alternative network controller using the second communication network protocol; and
 - 10 a communication device coupled to the second communication network, the communication device having a first identification and configured to support the first cellular core network signaling protocol and the second communication network protocol and to receive a second identification from the second communication network,
 - 15 wherein the alternative network controller is further configured to associate the first identification of the communication device with the second identification of the communication device and to establish communication between the communication device and the first communication network through the alternative network controller.
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- 25 27. The communication system of claim 26, wherein the second communication network is further configured to assign the second identification to the communication device in response to a request from the communication device to access the second communication network.

28. The communication system of claim 26, wherein the alternative network controller is further configured to provide services directed to the first identification of the communication device to the second identification of the communication device.

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29. The communication system of claim 26, wherein the alternative network controller is further configured to receive identification information of the second communication network and to associate the identification information of the second communication network with the first identification of the communication device.

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30. The communication system of claim 29, wherein the identification information of the second communication network includes at least one of:
a unique identifier specific to the second communication network,
location information of the second communication network,
a medium access control identification of the second communication network,
a service set identifier of the second communication network, and
an Internet Protocol address of the second communication network.

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31. The communication system of claim 26, wherein the alternative network controller further comprises a protocol converter configured to convert the first cellular communication core network signaling protocol into the second communication network protocol, and to convert the second communication network protocol into the first cellular core network signaling protocols.

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32. The communication system of claim 26, wherein the alternative network controller further comprises a tunnel controller configured to set up, maintain, and control a tunnel between the communication device and the alternative network controller to establish communication between the communication device and the first communication network.

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33. The communication system of claim 26, wherein the second communication network is one of:
- an unlicensed communication network,
 - 5 a local area network,
 - a wireless local area network
 - a wideband network,
 - an infrared network, and
 - a short-range network.